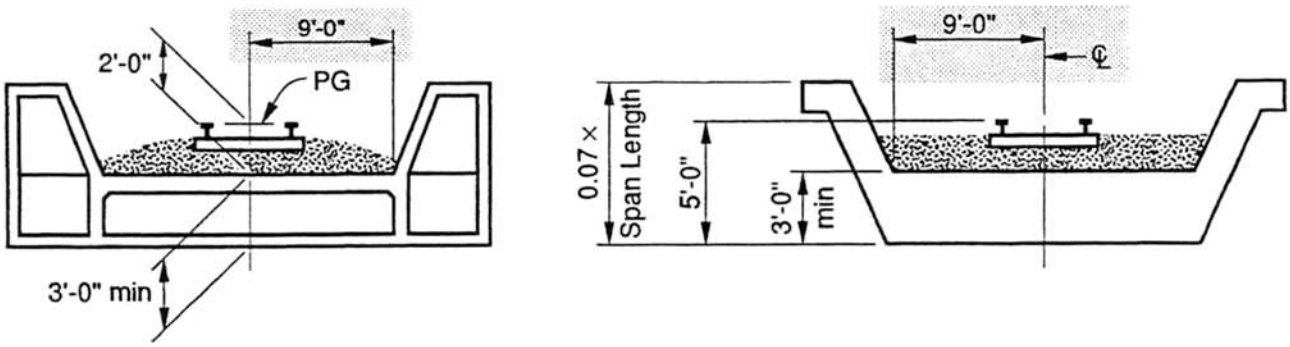
Railroad Bridges Superstructure Depths

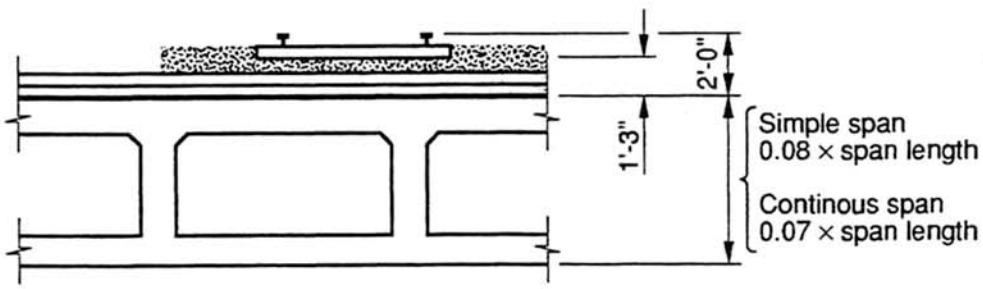
The dimensions on the following sketches may be used for preliminary studies and designs.



CELLULAR SOLID

Note: Cellular trough may be more economical for longer spans than the solid alternative.

Prestressed Concrete Troughs
Single Track Only

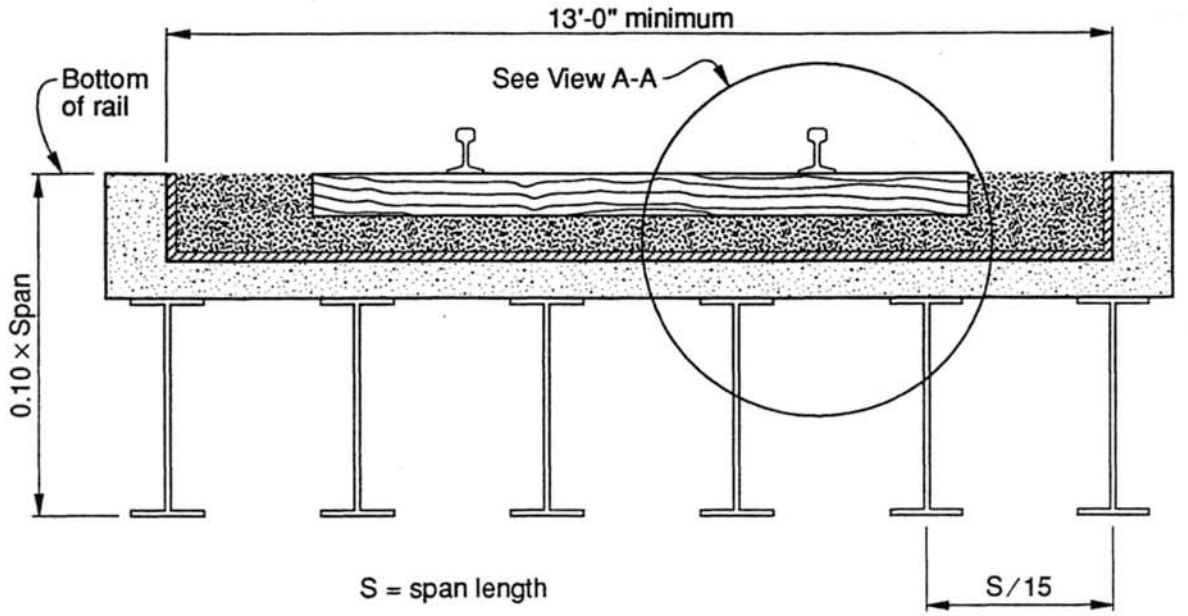


Prestressed Concrete Box
Any Number of Tracks

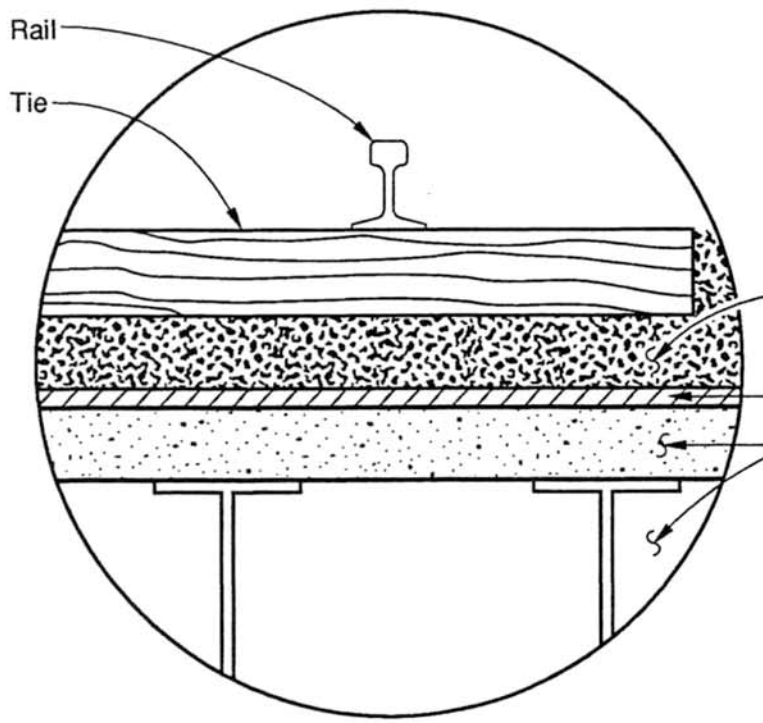
Concrete Structures

Ballast troughs of all railroad bridges should be sloped a minimum of 1% for drainage. A greater slope, if practical, is desired. If the tracks are level, the depth of ballast can be varied. This will increase the vertical dimension from top of rail to bottom of superstructure and should be considered in determining vertical clearances.

Supersedes Memo to Designers 17-115 dated May 1989



Typical Section



View A-A

Notes:

Live Load = Cooper's E-80
f_s = 60,000 psi

Data based on simple spans and A.R.E.A. 1983

Steel Deck Girders

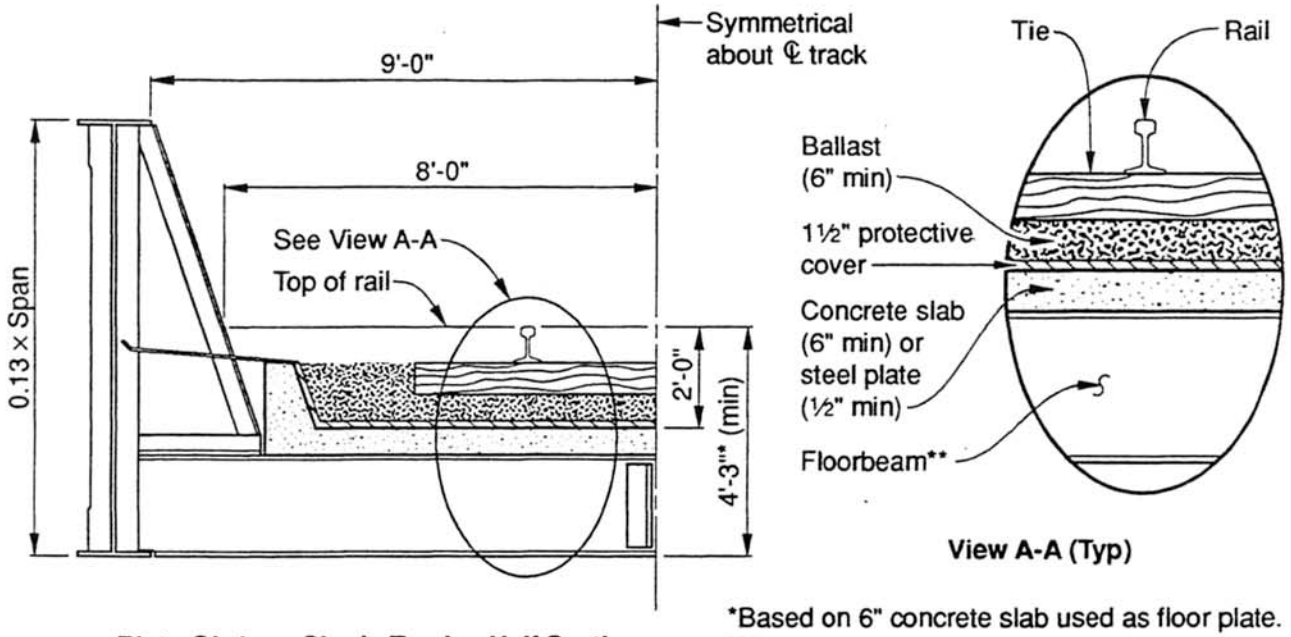


Plate Girder – Single Track – Half Section

*Based on 6" concrete slab used as floor plate.
**Depth of floor beam varies.

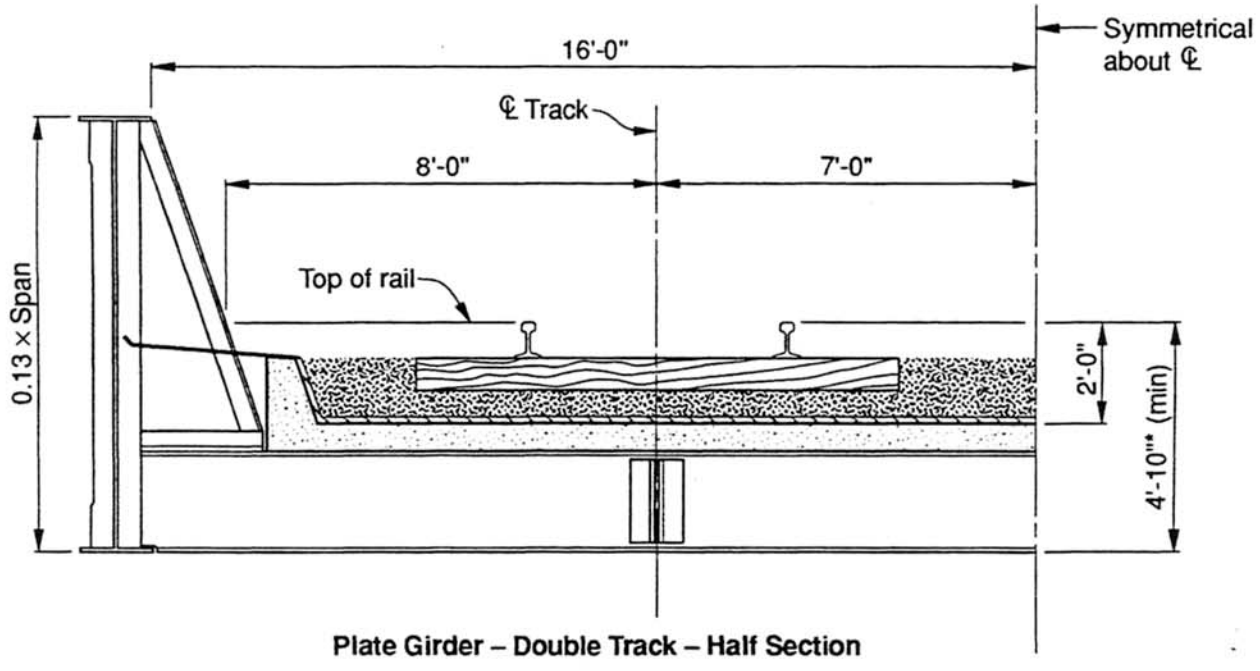


Plate Girder – Double Track – Half Section

Through Plate Girders

Notes: Data based on A.R.E.A. 1983 Simple Span Loading. Live Load = Cooper's E-80. Lateral dimensions may be increased for curved alignment.

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